EUROPEAN AND MEDITERRANEAN PLANT PROTECTION ORGANIZATION ORGANISATION EUROPEENNE ET MEDITERRANEENNE POUR LA PROTECTION DES PLANTES Summary sheet of validation data for a diagnostic test

The EPPO Standard PM 7/98 Specific requirements for laboratories preparing accreditation for a plant pest diagnostic activity describes how validation should be conducted. It also includes definitions of performance criteria.

Laboratory contact details	Anses Plant Health Laboratory - Pests and Tropical Pathogens Unit Pôle de Protection des Plantes, 7 Chemin de l'IRAT, 97410 Saint Pierre, France	
Short description of the test	Detection of Xanthomonas citri pv. citri by Molecular real time PCR in Leaves, Fruits	
Date, reference of the validation report	2021-08-05 - XCC1	
Link to other validation data	- XCC1 Detection of Xanthomonas citri pv. citri by Molecular real time PCR in Leaves, Fruits - XCC1 Detection of Xanthomonas citri pv. citri by Molecular Conventional PCR in Leaves, Fruits - XCC1 Detection of Xanthomonas citri pv. citri by Molecular Conventional PCR in Leaves, Fruits - XCC1 Detection of Xanthomonas citri pv. citri by Molecular Conventional PCR in Leaves, Fruits - XCC1 Detection of Xanthomonas citri pv. citri by Molecular Conventional PCR in Leaves, Fruits - XCC1 Detection of Xanthomonas citri pv. citri by Molecular LAMP PCR in Leaves, Fruits - XCC1 Detection of Xanthomonas citri pv. citri by Molecular real time PCR in Leaves, Fruits - XCC1 Detection of Xanthomonas citri pv. citri by Molecular Conventional PCR in Leaves, Fruits - XCC1 Detection of Xanthomonas citri pv. citri by Molecular Conventional PCR in Leaves, Fruits	
Validation process according to EPPO Standard PM7/98?	yes	
Is the lab accredited for this test?	no	
Was the validated data generated in the framework of a project?	Other_project	
If yes, please specify	VALITEST	
Description of the test		
Organism(s)	Vanthamanas sitri ny sitri(VANITCI)	
Organism(s)	Xanthomonas citri pv. citri(XANTCI)	
Detection / identification	detection	
Method(s)	Molecular real time PCR	
Method: Molecular real time PCR		
Reference of the test description		

As or adapted from an EPPO diagnostic protocol	no	
New test being considered for inclusion in the next version of the EPPO diagnostic protocol?	yes	
As or adapted from an IPPC diagnostic protocol	no	
Reference of the test	Robène et al., 2020 (qPCR-XAC1051-F/R and probe P-XAC-1051)	
Is the test modified compared to the reference test	no	
Kit		
Is a kit used	no	
Other information		
Reaction type	Duplex	
Performance Criteria :		
Organism 1.:	Xanthomonas citri pv. citri(XANTCI)	
Analytical sensitivity		
What is smallest amount of target that can be detected reliably?	POD of 0.95 : 380 CFU.ml-1	
Diagnostic sensitivity		
Proportion of infected/infested samples tested positive compared to results from the standard test, see appendix 2 of PM 7/98	95%	
Standard test(s)	This a comparison with samples of known status	
Analytical specificity - inclusivity		
Number of strains/populations of target organisms tested	82	
Specificity value	100%	
Analytical specificity - exclusivity		
Number of non-target organisms tested	46	
Specificity value	98%	
Diagnostic Specificity		
Proportion of uninfected/uninfested samples (true negatives) testing negative compared to results from a standard test	85%	
Specify the test(s)	This a comparison with samples of known status	
Reproducibility		
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	87%	
Repeatability		
Provide the calculated % of agreement for a given level of the pest (see PM 7/98)	96%	

Test performance study		
Test performance study?	yes	
Brief details of the test performance study and its output.It available, link to published article/report	Test performance study organized in the framework of the VALITEST project involving 17 laboratories from 14 countries	
The following complementary files are available online:	VALITEST TPS XCC REPORT_2021_08_05_v2	

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